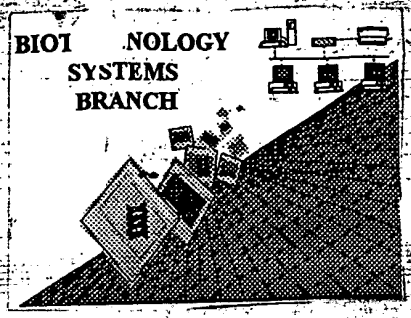

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/674,237

Source: PCT/09

Date Processed by STIC: 1/11/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin30help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 3.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

http://www.uspto.gov/web/offices/pac/checker

Raw Sequence Listing Error Summary

SERIAL NUMBER: 09/674,237

	ERROR DETECTED	SUGGESTED CORRECTION
	ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE	
1 ____	Wrapped Nucleics	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".
2 ____	Wrapped Aminos	The amino acid number/text at the end of each line "wrapped " down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".
3 ____	Incorrect Line Length	The rules require that a line not exceed 72 characters in length. This includes spaces.
4 ____	Misaligned Amino Acid Numbering	The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
5 ____	Non-ASCII	This file was not saved in ASCII (DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
6 ____	Variable Length	Sequence(s) ____ contain n's or Xaa's which represented more than one residue. As per the rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.
7 ____	PatentIn ver. 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
8 ____	Skipped Sequences (OLD RULES)	Sequence(s) ____ missing. If intentional, please use the following format for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS") (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: **This sequence is intentionally skipped** Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
9 ____	Skipped Sequences (NEW RULES)	Sequence(s) ____ missing. If intentional, please use the following format for each skipped sequence. <210> sequence id number <400> sequence id number 000
10 ____	Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Use of <220> to <223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
11 ____	Use of <213>Organism (NEW RULES)	Sequence(s) _____ are missing this mandatory field or its response.
12 ____	Use of <220>Feature (NEW RULES)	Sequence(s) ____ are missing the <220>Feature and associated headings. Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown" **Please explain source of genetic material in <220> to <223> section.** (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
13 ____	PatentIn ver. 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other means to copy file to floppy disk.

PCT09

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

Input Set : A:\Egan1.app
Output Set: N:\CRF3\01112001\I674237.raw

3 <110> APPLICANT: HSC RESEARCH AND DEVELOPMENT LIMITED PARTNERSHIP
5 <120> TITLE OF INVENTION: ESE GENES AND PROTEINS
7 <130> FILE REFERENCE: 3206-169/PAR
9 <140> CURRENT APPLICATION NUMBER: US/09/674,237
10 <141> CURRENT FILING DATE: 2000-10-27
12 <150> PRIOR APPLICATION NUMBER: 2,230,201
13 <151> PRIOR FILING DATE: 1998-04-27
15 <160> NUMBER OF SEQ ID NOS: 33
17 <170> SOFTWARE: PatentIn Ver. 2.0

OK

Does Not Comply
Corrected Diskette Needed

ERRORED SEQUENCES

p.4

512 <210> SEQ ID NO: 3
513 <211> LENGTH: 1213
514 <212> TYPE: PRT
515 <213> ORGANISM: Mus musculus
517 <400> SEQUENCE: 3
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521 Ile Thr Val Glu Glu Arg Ala Lys His Asp Gln Gln Phe Leu Ser Leu
522 20 25 30
524 Lys Pro Ile Ala Gly Phe Ile Thr Gly Asp Gln Ala Arg Asn Phe Phe
525 35 40 45
527 Phe Gln Ser Gly Leu Pro Gln Pro Val Leu Ala Gln Ile Trp Ala Leu
528 50 55 60
530 Ala Asp Met Asn Asn Asp Gly Arg Met Asp Gln Val Glu Phe Ser Ile
531 65 70 75 80
533 Ala Met Lys Leu Ile Lys Leu Lys Leu Gln Gly Tyr Gln Leu Pro Ser
534 85 90 95
536 Thr Leu Pro Pro Val Met Lys Gln Gln Pro Val Ala Ile Ser Ser Ala
537 100 105 110
539 Pro Ala Phe Gly Ile Gly Gly Ile Ala Ser Met Pro Pro Leu Thr Ala
540 115 120 125
542 Val Ala Pro Val Pro Met Gly Ser Ile Pro Val Val Gly Met Ser Pro
543 130 135 140
545 Pro Leu Val Ser Ser Val Pro Pro Ala Ala Val Pro Pro Leu Ala Asn
546 145 150 155 160
548 Gly Ala Pro Pro Val Ile Gln Pro Leu Pro Ala Phe Ala His Pro Ala
549 165 170 175
551 Ala Thr Trp Pro Lys Ser Ser Ser Phe Ser Arg Ser Gly Pro Gly Ser
552 180 185 190
554 Gln Leu Asn Thr Lys Leu Gln Lys Ala Gln Ser Phe Asp Val Ala Ser
555 195 200 205
557 Ala Pro Pro Ala Ala Glu Trp Ala Val Pro Gln Ser Ser Arg Leu Lys
558 210 215 220
560 Tyr Arg Gln Leu Phe Asn Ser His Asp Lys Thr Met Ser Gly His Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

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569 Lys Leu Thr Ala Glu Glu Phe Ile Leu Ala Met His Leu Ile Asp Val
570         275                 280                 285
572 Ala Met Ser Gly Gln Pro Leu Pro Pro Val Leu Pro Pro Glu Tyr Ile
573     290                 295                 300
575 Pro Pro Ser Phe Arg Arg Val Arg Ser Gly Ser Gly Met Ser Val Ile
576 305                 310                 315                 320
578 Ser Ser Ser Ser Val Asp Gln Arg Leu Pro Glu Glu Pro Ser Ser Glu
579                 325                 330                 335
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582             340                 345                 350
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588     370                 375                 380
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591 385                 390                 395                 400
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594                 405                 410                 415
596 Glu Leu Glu Arg Gln Arg Glu Glu Glu Arg Arg Lys Glu Ile Glu Arg
597             420                 425                 430
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600         435                 440                 445
602 Glu Arg Asn Arg Arg Gln Glu Leu Leu Asn Gln Arg Asn Lys Glu Gln
603     450                 455                 460
605 Glu Gly Thr Val Val Leu Lys Ala Arg Arg Lys Thr Leu Glu Phe Glu
606 465                 470                 475                 480
608 Leu Glu Ala Leu Asn Asp Lys Lys His Gln Leu Glu Gly Lys Leu Gln
609                 485                 490                 495
611 Asp Ile Arg Cys Arg Leu Ala Thr Gln Arg Gln Glu Ile Glu Ser Thr
612             500                 505                 510
614 Asn Lys Ser Arg Glu Leu Arg Ile Ala Glu Ile Thr His Leu Gln Gln
615         515                 520                 525
617 Gln Leu Gln Glu Ser Gln Gln Met Leu Gly Arg Leu Ile Pro Glu Lys
618     530                 535                 540
620 Gln Ile Leu Ser Asp Gln Leu Lys Gln Val Gln Gln Asn Ser Leu His
621 545                 550                 555                 560
623 Arg Asp Ser Leu Leu Thr Leu Lys Arg Ala Leu Glu Ala Lys Glu Leu
624                 565                 570                 575
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627             580                 585                 590
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632 Leu Arg Glu Ile His Ser Lys Gln Gln Leu Gln Lys Gln Arg Ser Leu
633     610                 615                 620
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RAW SEQUENCE LISTING DATE: 01/11/2001
PATENT APPLICATION: US/09/674,237 TIME: 17:14:19

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Output Set: N:\CRF3\01112001\I674237.raw

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636 625 630 635 640
638 Leu Glu Lys Gln Lys Glu Asp Ala Gln Arg Arg Val Gln Glu Arg Asp
639 645 650 655
641 Lys Gln Trp Leu Glu His Val Gln Gln Glu Glu Gln Pro Arg Pro Arg
642 660 665 670
644 Lys Pro His Glu Glu Asp Arg Leu Lys Arg Glu Asp Ser Val Arg Lys
645 675 680 685
647 Lys Glu Ala Glu Glu Arg Ala Lys Pro Glu Met Gln Asp Lys Gln Ser
648 690 695 700
650 Arg Leu Phe His Pro His Gln Glu Pro Ala Lys Leu Ala Thr Gln Ala
651 705 710 715 720
653 Pro Trp Ser Thr Thr Glu Lys Gly Pro Leu Thr Ile Ser Ala Gln Glu
654 725 730 735
656 Ser Val Lys Val Val Tyr Tyr Arg Ala Leu Tyr Pro Phe Glu Ser Arg
657 740 745 750
659 Ser His Asp Glu Ile Thr Ile Gln Pro Gly Asp Ile Val Met Val Asp
660 755 760 765
662 Glu Ser Gln Thr Gly Glu Pro Gly Trp Leu Gly Gly Glu Leu Lys Gly
663 770 775 780
665 Lys Thr Gly Trp Phe Pro Ala Asn Tyr Ala Glu Lys Ile Pro Glu Asn
666 785 790 795 800
668 Glu Val Pro Thr Pro Ala Lys Pro Val Thr Asp Leu Thr Ser Ala Pro
669 805 810 815
671 Ala Pro Lys Leu Ala Leu Arg Glu Thr Pro Ala Pro Leu Pro Val Thr
672 820 825 830
674 Ser Ser Glu Pro Ser Thr Thr Pro Asn Asn Trp Ala Asp Phe Ser Ser
675 835 840 845
677 Thr Trp Pro Ser Ser Ser Asn Glu Lys Pro Glu Thr Asp Asn Trp Asp
678 850 855 860
680 Thr Trp Ala Ala Gln Pro Ser Leu Thr Val Pro Ser Ala Gly Gln Leu
681 865 870 875 880
683 Arg Gln Arg Ser Ala Phe Thr Pro Ala Thr Ala Thr Gly Ser Ser Pro
684 885 890 895
686 Ser Pro Val Leu Gly Gln Gly Glu Lys Val Glu Gly Leu Gln Ala Gln
687 900 905 910
689 Ala Leu Tyr Pro Trp Arg Ala Lys Lys Asp Asn His Leu Asn Phe Asn
690 915 920 925
692 Lys Ser Asp Val Ile Thr Val Leu Glu Gln Gln Asp Met Trp Trp Phe
693 930 935 940
695 Gly Glu Val Gln Gly Gln Lys Gly Trp Phe Pro Lys Ser Tyr Val Lys
696 945 950 955 960
698 Leu Ile Ser Gly Pro Val Arg Lys Ser Thr Ser Ile Asp Thr Gly Pro
699 965 970 975
701 Thr Glu Ser Pro Ala Ser Leu Lys Arg Val Ala Ser Pro Ala Ala Lys
702 980 985 990
704 Pro Ala Ile Pro Gly Glu Glu Phe Ile Ala Met Tyr Thr Tyr Glu Ser
705 995 1000 1005
707 Ser Glu Gln Gly Asp Leu Thr Phe Gln Gln Gly Asp Val Ile Val Val

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

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Output Set: N:\CRF3\01112001\I674237.raw

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     714                1045                1050                1055
     716 Gly Thr Ala Gly Lys Thr Gly Ser Leu Gly Lys Lys Pro Glu Ile Ala
     717            1060                1065                1070
     719 Gln Val Ile Ala Ser Tyr Ala Ala Thr Gly Pro Glu Gln Leu Thr Leu
     720        1075                1080                1085
     722 Ala Pro Gly Gln Leu Ile Leu Ile Arg Lys Lys Asn Pro Gly Gly Trp
     723    1090                1095                1100
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E--> 726 105               1110                1115                1120
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     729                1125                1130                1135
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     732            1140                1145                1150
     734 Val Ile Gly Met Tyr Asp Tyr Thr Ala Gln Asn Asp Asp Glu Leu Ala
     735        1155                1160                1165
     737 Phe Ser Lys Gly Gln Ile Ile Asn Val Leu Asn Lys Glu Asp Pro Asp
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    1231 Ile Thr Ser Glu Glu Arg Thr Lys His Asp Lys Gln Phe Asp Asn Leu
    1232              20                  25                  30
    1234 Lys Pro Ser Gly Gly Tyr Ile Thr Gly Asp Gln Ala Arg Thr Phe Phe
    1235          35                  40                  45
    1237 Leu Gln Ser Gly Leu Pro Ala Pro Val Leu Ala Glu Ile Trp Ala Leu
    1238      50                  55                  60
    1240 Ser Asp Leu Asn Lys Asp Gly Lys Met Asp Gln Gln Glu Phe Ser Ile
    1241  65                  70                  75                  80
    1243 Ala Met Lys Leu Ile Lys Leu Lys Leu Gln Gly Gln Gln Leu Pro Val
    1244                  85                  90                  95
    1246 Val Leu Pro Pro Ile Met Lys Gln Pro Pro Met Phe Ser Pro Leu Ile
    1247             100                 105                 110
    1249 Ser Ala Arg Phe Gly Met Gly Ser Met Pro Asn Leu Ser Ile His Gln
    1250         115                 120                 125
    1252 Pro Leu Pro Pro Val Ala Pro Ile Ala Thr Pro Leu Ser Ser Ala Thr
    1253     130                 135                 140
    1255 Ser Gly Thr Ser Ile Pro Pro Leu Met Met Pro Ala Pro Leu Val Pro
```

When numbering first amino acid on a line, begin the number under the first letter of the amino acid. Please leave a space between entire number and next amino acid.

p.7

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

Input Set : A:\Egan1.app
Output Set: N:\CRF3\01112001\I674237.raw

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1259                 165                 170                 175
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1262             180                 185                 190
1264 Tyr Ser Leu Met Met Gly Gly Phe Gly Gly Ala Ser Ile Gln Lys Ala
1265         195                 200                 205
1267 Gln Ser Leu Ile Asp Leu Gly Ser Ser Ser Ser Thr Ser Ser Thr Ala
1268     210                 215                 220
1270 Ser Leu Ser Gly Asn Ser Pro Lys Thr Gly Thr Ser Glu Trp Ala Val
1271 225                 230                 235                 240
1273 Pro Gln Pro Ser Arg Leu Lys Tyr Arg Gln Lys Phe Asn Ser Leu Asp
1274                 245                 250                 255
1276 Lys Gly Met Ser Gly Tyr Leu Ser Gly Phe Gln Ala Arg Asn Ala Leu
1277             260                 265                 270
1279 Leu Gln Ser Asn Leu Ser Gln Thr Gln Leu Ala Thr Ile Trp Thr Leu
1280         275                 280                 285
1282 Ala Asp Ile Asp Gly Asp Gly Gln Leu Lys Ala Glu Glu Phe Ile Leu
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1285 Ala Met His Leu Thr Asp Met Ala Lys Ala Gly Gln Pro Leu Pro Leu
1286 305                 310                 315                 320
1288 Thr Leu Pro Pro Glu Leu Val Pro Pro Ser Phe Arg Gly Gly Lys Gln
1289                 325                 330                 335
1291 Val Asp Ser Val Asn Gly Thr Leu Pro Ser Tyr Gln Lys Thr Gln Glu
1292             340                 345                 350
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1295         355                 360                 365
1297 Ala Asn Tyr Glu Arg Gly Asn Met Glu Leu Glu Lys Arg Arg Gln Val
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1300 Leu Met Glu Gln Gln Gln Arg Glu Ala Glu Arg Lys Ala Gln Lys Glu
1301 385                 390                 395                 400
1303 Lys Glu Glu Trp Glu Arg Lys Gln Arg Glu Leu Gln Glu Gln Glu Trp
1304                 405                 410                 415
1306 Lys Lys Gln Leu Glu Leu Glu Lys Arg Leu Glu Lys Gln Arg Glu Leu
1307             420                 425                 430
1309 Glu Arg Gln Arg Glu Glu Glu Arg Arg Lys Glu Ile Glu Arg Arg Glu
1310         435                 440                 445
1312 Ala Ala Lys Gln Glu Leu Glu Arg Gln Arg Arg Leu Glu Trp Glu Arg
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1315 Leu Arg Arg Gln Glu Leu Leu Ser Gln Lys Thr Arg Glu Gln Glu Asp
1316 465                 470                 475                 480
1318 Ile Val Arg Leu Ser Ser Arg Lys Lys Ser Leu His Leu Glu Leu Glu
1319                 485                 490                 495
1321 Ala Val Asn Gly Lys His Gln Gln Ile Ser Gly Arg Leu Gln Asp Val
1322             500                 505                 510
1324 Gln Ile Arg Lys Gln Thr Gln Lys Thr Glu Leu Glu Val Leu Asp Lys
1325         515                 520                 525
1327 Gln Cys Asp Leu Glu Ile Met Glu Ile Lys Gln Leu Gln Gln Glu Leu
1328     530                 535                 540
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

Input Set : A:\Egan1.app
Output Set: N:\CRF3\01112001\I674237.raw

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1337             580                 585                 590
1339 Gln Arg Leu Lys Glu Gln Leu Asp Ala Leu Glu Lys Glu Thr Ala Ser
1340         595                 600                 605
1342 Lys Leu Ser Glu Met Asp Ser Phe Asn Asn Gln Leu Lys Glu Leu Arg
1343     610                 615                 620
1345 Glu Ser Tyr Asn Thr Gln Gln Leu Ala Leu Glu Gln Leu His Lys Ile
1346 625                 630                 635                 640
1348 Lys Arg Asp Lys Leu Lys Glu Ile Glu Arg Lys Arg Leu Glu Gln Ile
1349                 645                 650                 655
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1352             660                 665                 670
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1355         675                 680                 685
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1358     690                 695                 700
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1361 705                 710                 715                 720
1363 Asn Tyr Arg Ala Leu Tyr Pro Phe Glu Ala Arg Asn His Asp Glu Met
1364                 725                 730                 735
1366 Ser Phe Ser Ser Gly Asp Ile Ile Gln Val Asp Glu Lys Thr Val Gly
1367             740                 745                 750
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1370         755                 760                 765
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1375 Pro Lys Lys Ala Leu Leu Pro Pro Thr Val Ser Leu Ser Ala Thr Ser
1376 785                 790                 795                 800
1378 Thr Ser Ser Gln Pro Pro Ala Ser Val Thr Asp Tyr His Asn Val Ser
1379                 805                 810                 815
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1384 Thr Arg Thr Val Ser Pro Gly Ser Val Ser Pro Ile His Gly Gln Gly
1385         835                 840                 845
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1388     850                 855                 860
1390 Lys Lys Glu Asn His Leu Asn Phe Ser Lys His Asp Val Ile Thr Val
1391 865                 870                 875                 880
1393 Leu Glu Gln Gln Gln Glu Asn Trp Trp Phe Gly Glu Val His Gly Gly Arg
1394                 885                 890                 895
1396 Gly Trp Phe Pro Lys Ser Tyr Val Lys Leu Ile Pro Gly Asn Glu Val
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

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Output Set: N:\CRF3\01112001\I674237.raw

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1412             980                 985                 990
1414 Tyr Val Arg Pro Lys Asp Gln Glu Asn Phe Gly Asn Ala Ser Lys Ser
1415         995                1000                1005
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E--> 1421 025                1030                1035                1040
1423 Leu Ile Leu Lys Lys Asn Thr Ser Gly Trp Trp Gln Gly Glu Leu Gln
1424                1045                1050                1055
1426 Ala Arg Gly Lys Lys Arg Gln Lys Gly Trp Phe Pro Ala Ser His Val
1427            1060                1065                1070
1429 Lys Leu Leu Gly Pro Ser Ser Glu Arg Thr Met Pro Thr Phe His Ala
1430        1075                1080                1085
1432 Val Cys Gln Val Ile Ala Met Tyr Asp Tyr Met Ala Asn Asn Glu Asp
1433    1090                1095                1100
1435 Glu Leu Asn Phe Ser Lys Gly Gln Leu Ile Asn Val Met Asn Lys Asp
E--> 1436 105                1110                1115                1120
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1439                1125                1130                1135
1441 Pro Ser Asn Tyr Val Lys Met Thr Thr Asp Ser Asp Pro Ser Gln Gln
1442            1140                1145                1150
1444 Trp Cys Ala Asp Leu Gln Ala Leu Asp Thr Met Gln Pro Thr Glu Arg
1445        1155                1160                1165
1447 Lys Arg Gln Gly Tyr Ile His Glu Leu Ile Gln Thr Glu Glu Arg Tyr
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2763         35                  40                  45
2765 Phe Gln Ser Gly Leu Pro Gln Pro Val Leu Ala Gln Ile Trp Ala Leu
2766     50                  55                  60
2768 Ala Asp Met Asn Asn Asp Gly Arg Met Asp Gln Val Glu Phe Ser Ile
2769 65                  70                  75                  80
2771 Ala Met Lys Leu Ile Lys Leu Lys Leu Gln Gly Tyr Gln Leu Pro Ser
```

same error

pr 10-12

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

Input Set : A:\Egan1.app
Output Set: N:\CRF3\01112001\I674237.raw

```
2772                    85                  90                  95
2774 Thr Leu Pro Pro Val Met Lys Gln Gln Pro Val Ala Ile Ser Ser Ala
2775             100                 105                 110
2777 Pro Ala Phe Gly Ile Gly Gly Ile Ala Ser Met Pro Pro Leu Thr Ala
2778         115                 120                 125
2780 Val Ala Pro Val Pro Met Gly Ser Ile Pro Val Val Gly Met Ser Pro
2781     130                 135                 140
2783 Pro Leu Val Ser Ser Val Pro Pro Ala Ala Val Pro Pro Leu Ala Asn
2784 145                 150                 155                 160
2786 Gly Ala Pro Pro Val Ile Gln Pro Leu Pro Ala Phe Ala His Pro Ala
2787                 165                 170                 175
2789 Ala Thr Trp Pro Lys Ser Ser Ser Phe Ser Arg Ser Gly Pro Gly Ser
2790             180                 185                 190
2792 Gln Leu Asn Thr Lys Leu Gln Lys Ala Gln Ser Phe Asp Val Ala Ser
2793         195                 200                 205
2795 Ala Pro Pro Ala Ala Glu Trp Ala Val Pro Gln Ser Ser Arg Leu Lys
2796     210                 215                 220
2798 Tyr Arg Gln Leu Phe Asn Ser His Asp Lys Thr Met Ser Gly His Leu
2799 225                 230                 235                 240
2801 Thr Gly Pro Gln Ala Arg Thr Ile Leu Met Gln Ser Ser Leu Pro Gln
2802                 245                 250                 255
2804 Ala Gln Leu Ala Ser Ile Trp Asn Leu Ser Asp Ile Asp Gln Asp Gly
2805             260                 265                 270
2807 Lys Leu Thr Ala Glu Glu Phe Ile Leu Ala Met His Leu Ile Asp Val
2808         275                 280                 285
2810 Ala Met Ser Gly Gln Pro Leu Pro Pro Val Leu Pro Pro Glu Tyr Ile
2811     290                 295                 300
2813 Pro Pro Ser Phe Arg Arg Val Arg Ser Gly Ser Gly Met Ser Val Ile
2814 305                 310                 315                 320
2816 Ser Ser Ser Ser Val Asp Gln Arg Leu Pro Glu Glu Pro Ser Ser Glu
2817                 325                 330                 335
2819 Asp Glu Gln Gln Pro Glu Lys Lys Leu Pro Val Thr Phe Glu Asp Lys
2820             340                 345                 350
2822 Lys Arg Glu Asn Phe Glu Arg Gly Ser Val Glu Leu Glu Lys Arg Arg
2823         355                 360                 365
2825 Gln Ala Leu Leu Glu Gln Gln Arg Lys Glu Gln Glu Arg Leu Ala Gln
2826     370                 375                 380
2828 Leu Glu Arg Ala Glu Gln Glu Arg Lys Glu Arg Glu Arg Gln Glu Gln
2829 385                 390                 395                 400
2831 Glu Ala Lys Arg Gln Leu Glu Leu Glu Lys Gln Leu Glu Lys Gln Arg
2832                 405                 410                 415
2834 Glu Leu Glu Arg Gln Arg Glu Glu Glu Arg Arg Lys Glu Ile Glu Arg
2835             420                 425                 430
2837 Arg Glu Ala Ala Lys Arg Glu Leu Glu Arg Gln Arg Gln Leu Glu Trp
2838         435                 440                 445
2840 Glu Arg Asn Arg Arg Gln Glu Leu Leu Asn Gln Arg Asn Lys Glu Gln
2841     450                 455                 460
2843 Glu Gly Thr Val Val Leu Lys Ala Arg Arg Lys Thr Leu Glu Phe Glu
2844 465                 470                 475                 480
```

RAW SEQUENCE LISTING DATE: 01/11/2001
PATENT APPLICATION: US/09/674,237 TIME: 17:14:19

Input Set : A:\Eganl.app
Output Set: N:\CRF3\01112001\I674237.raw

```
2846 Leu Glu Ala Leu Asn Asp Lys Lys His Gln Leu Glu Gly Lys Leu Gln
2847                 485                 490                 495
2849 Asp Ile Arg Cys Arg Leu Ala Thr Gln Arg Gln Glu Ile Glu Ser Thr
2850             500                 505                 510
2852 Asn Lys Ser Arg Glu Leu Arg Ile Ala Glu Ile Thr His Leu Gln Gln
2853         515                 520                 525
2855 Gln Leu Gln Glu Ser Gln Gln Met Leu Gly Arg Leu Ile Pro Glu Lys
2856     530                 535                 540
2858 Gln Ile Leu Ser Asp Gln Leu Lys Gln Val Gln Gln Asn Ser Leu His
2859 545                 550                 555                 560
2861 Arg Asp Ser Leu Leu Thr Leu Lys Arg Ala Leu Glu Ala Lys Glu Leu
2862                 565                 570                 575
2864 Ala Arg Gln Gln Leu Arg Glu Gln Leu Asp Glu Val Glu Arg Glu Thr
2865             580                 585                 590
2867 Arg Ser Lys Leu Gln Glu Ile Asp Val Phe Asn Asn Gln Leu Lys Glu
2868         595                 600                 605
2870 Leu Arg Glu Ile His Ser Lys Gln Gln Leu Gln Lys Gln Arg Ser Leu
2871     610                 615                 620
2873 Glu Ala Ala Arg Leu Lys Gln Lys Glu Gln Glu Arg Lys Ser Leu Glu
2874 625                 630                 635                 640
2876 Leu Glu Lys Gln Lys Glu Asp Ala Gln Arg Arg Val Gln Glu Arg Asp
2877                 645                 650                 655
2879 Lys Gln Trp Leu Glu His Val Gln Gln Glu Glu Gln Pro Arg Pro Arg
2880             660                 665                 670
2882 Lys Pro His Glu Glu Asp Arg Leu Lys Arg Glu Asp Ser Val Arg Lys
2883         675                 680                 685
2885 Lys Glu Ala Glu Glu Arg Ala Lys Pro Glu Met Gln Asp Lys Gln Ser
2886     690                 695                 700
2888 Arg Leu Phe His Pro His Gln Glu Pro Ala Lys Leu Ala Thr Gln Ala
2889 705                 710                 715                 720
2891 Pro Trp Ser Thr Thr Glu Lys Gly Pro Leu Thr Ile Ser Ala Gln Glu
2892                 725                 730                 735
2894 Ser Val Lys Val Val Tyr Tyr Arg Ala Leu Tyr Pro Phe Glu Ser Arg
2895             740                 745                 750
2897 Ser His Asp Glu Ile Thr Ile Gln Pro Gly Asp Ile Val Met Val Asp
2898         755                 760                 765
2900 Glu Ser Gln Thr Gly Glu Pro Gly Trp Leu Gly Gly Glu Leu Lys Gly
2901     770                 775                 780
2903 Lys Thr Gly Trp Phe Pro Ala Asn Tyr Ala Glu Lys Ile Pro Glu Asn
2904 785                 790                 795                 800
2906 Glu Val Pro Thr Pro Ala Lys Pro Val Thr Asp Leu Thr Ser Ala Pro
2907                 805                 810                 815
2909 Ala Pro Lys Leu Ala Leu Arg Glu Thr Pro Ala Pro Leu Pro Val Thr
2910             820                 825                 830
2912 Ser Ser Glu Pro Ser Thr Thr Pro Asn Asn Trp Ala Asp Phe Ser Ser
2913         835                 840                 845
2915 Thr Trp Pro Ser Ser Ser Asn Glu Lys Pro Glu Thr Asp Asn Trp Asp
2916     850                 855                 860
2918 Thr Trp Ala Ala Gln Pro Ser Leu Thr Val Pro Ser Ala Gly Gln Leu
```

RAW SEQUENCE LISTING DATE: 01/11/2001
PATENT APPLICATION: US/09/674,237 TIME: 17:14:19

Input Set : A:\Egan1.app
Output Set: N:\CRF3\01112001\I674237.raw

```
2919 865                 870                 875                 880
2921 Arg Gln Arg Ser Ala Phe Thr Pro Ala Thr Ala Thr Gly Ser Ser Pro
2922                 885                 890                 895
2924 Ser Pro Val Leu Gly Gln Gly Glu Lys Val Glu Gly Leu Gln Ala Gln
2925             900                 905                 910
2927 Ala Leu Tyr Pro Trp Arg Ala Lys Lys Asp Asn His Leu Asn Phe Asn
2928         915                 920                 925
2930 Lys Ser Asp Val Ile Thr Val Leu Glu Gln Gln Asp Met Trp Trp Phe
2931     930                 935                 940
2933 Gly Glu Val Gln Gly Gln Lys Gly Trp Phe Pro Lys Ser Tyr Val Lys
2934 945                 950                 955                 960
2936 Leu Ile Ser Gly Pro Val Arg Lys Ser Thr Ser Ile Asp Thr Gly Pro
2937                 965                 970                 975
2939 Thr Glu Ser Pro Ala Ser Leu Lys Arg Val Ala Ser Pro Ala Ala Lys
2940             980                 985                 990
2942 Pro Ala Ile Pro Gly Glu Glu Phe Ile Ala Met Tyr Thr Tyr Glu Ser
2943         995                1000                1005
2945 Ser Glu Gln Gly Asp Leu Thr Phe Gln Gln Gly Asp Val Ile Val Val
2946    1010                1015                1020
2948 Thr Lys Lys Asp Gly Asp Trp Trp Thr Gly Thr Val Gly Asp Lys Ser
E--> 2949 1025                1030                1035                1040
2951 Gly Val Phe Pro Ser Asn Tyr Val Arg Leu Lys Asp Ser Glu Gly Ser
2952                1045                1050                1055
2954 Gly Thr Ala Gly Lys Thr Gly Ser Leu Gly Lys Lys Pro Glu Ile Ala
2955            1060                1065                1070
2957 Gln Val Ile Ala Ser Tyr Ala Ala Thr Gly Pro Glu Gln Leu Thr Leu
2958        1075                1080                1085
2960 Ala Pro Gly Gln Leu Ile Leu Ile Arg Lys Lys Asn Pro Gly Gly Trp
2961    1090                1095                1100
2963 Trp Glu Gly Glu Leu Gln Ala Arg Gly Lys Lys Arg Gln Ile Gly Trp
E--> 2964 1105                1110                1115                1120
2966 Phe Pro Ala Asn Tyr Val Lys Leu Leu Ser Pro Gly Thr Ser Lys Ile
2967                1125                1130                1135
2969 Thr Pro Thr Glu Leu Pro Lys Thr Ala Val Gln Pro Ala Val Cys Gln
2970            1140                1145                1150
2972 Val Ile Gly Met Tyr Asp Tyr Thr Ala Gln Asn Asp Asp Glu Leu Ala
2973        1155                1160                1165
2975 Phe Ser Lys Gly Gln Ile Ile Asn Val Leu Asn Lys Glu Asp Pro Asp
2976    1170                1175                1180
2978 Trp Trp Lys Gly Glu Val Ser Gly Gln Val Gly Leu Phe Pro Ser Asn
E--> 2979 1185                1190                1195                1200
2981 Tyr Val Lys Leu Thr Thr Asp Met Asp Pro Ser Gln Gln Trp Cys Ser
2982                1205                1210                1215
2984 Asp Leu His Leu Leu Asp Met Leu Thr Pro Thr Glu Arg Lys Arg Gln
2985            1220                1225                1230
2987 Gly Tyr Ile His Glu Leu Ile Val Thr Glu Glu Asn Tyr Val Asn Asp
2988        1235                1240                1245
2990 Leu Gln Leu Val Thr Glu Ile Phe Gln Lys Pro Leu Thr Glu Ser Glu
2991    1250                1255                1260
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

Input Set : A:\Eganl.app
Output Set: N:\CRF3\01112001\I674237.raw

2993 Leu Leu Thr Glu Lys Glu Val Ala Met Ile Phe Val Asn Trp Lys Glu
E--> 2994 265 1270 1275 1280
2996 Leu Ile Met Cys Asn Ile Lys Leu Leu Lys Ala Leu Arg Val Arg Lys
2997 1285 1290 1295
2999 Lys Met Ser Gly Glu Lys Met Pro Val Lys Met Ile Gly Asp Ile Leu
3000 1300 1305 1310
3002 Ser Ala Gln Leu Pro His Met Gln Pro Tyr Ile Arg Phe Cys Ser Cys
3003 1315 1320 1325
3005 Gln Leu Asn Gly Ala Ala Leu Ile Gln Gln Lys Thr Asp Glu Ala Pro
3006 1330 1335 1340
3008 Asp Phe Lys Glu Phe Val Lys Arg Leu Ala Met Asp Pro Arg Cys Lys
E--> 3009 345 1350 1355 1360
3011 Gly Met Pro Leu Ser Ser Phe Ile Leu Lys Pro Met Gln Arg Val Thr
3012 1365 1370 1375
3014 Arg Tyr Pro Leu Ile Ile Lys Asn Ile Leu Glu Asn Thr Pro Glu Asn
3015 1380 1385 1390
3017 His Pro Asp His Ser His Leu Lys His Ala Leu Glu Lys Ala Glu Glu
3018 1395 1400 1405
3020 Leu Cys Ser Gln Val Asn Glu Gly Val Arg Glu Lys Glu Asn Ser Asp
3021 1410 1415 1420
3023 Arg Leu Glu Trp Ile Gln Ala His Val Gln Cys Glu Gly Leu Ser Glu
E--> 3024 425 1430 1435 1440
3026 Gln Leu Val Phe Asn Ser Val Thr Asn Cys Leu Gly Pro Arg Lys Phe
3027 1445 1450 1455
3029 Leu His Ser Gly Lys Leu Tyr Lys Ala Lys Ser Asn Lys Glu Leu Tyr
3030 1460 1465 1470
3032 Gly Phe Leu Phe Asn Asp Phe Leu Leu Leu Thr Gln Ile Thr Lys Pro
3033 1475 1480 1485
3035 Leu Gly Ser Ser Gly Thr Asp Lys Val Phe Ser Pro Lys Ser Asn Leu
3036 1490 1495 1500
3038 Gln Tyr Lys Met Tyr Lys Thr Pro Ile Phe Leu Asn Glu Val Leu Val
E--> 3039 505 1510 1515 1520
3041 Lys Leu Pro Thr Asp Pro Ser Gly Asp Glu Pro Ile Phe His Ile Ser
3042 1525 1530 1535
3044 His Ile Asp Arg Val Tyr Thr Leu Arg Ala Glu Ser Ile Asn Glu Arg
3045 1540 1545 1550
3047 Thr Ala Trp Val Gln Lys Ile Lys Ala Ala Ser Glu Leu Tyr Ile Glu
3048 1555 1560 1565
3050 Thr Glu Lys Lys Lys Arg Glu Lys Ala Tyr Leu Val Arg Ser Gln Arg
3051 1570 1575 1580
3053 Ala Thr Gly Ile Gly Arg Leu Met Val Asn Val Val Glu Gly Ile Glu
E--> 3054 585 1590 1595 1600
3056 Leu Lys Pro Cys Arg Ser His Gly Lys Ser Asn Pro Tyr Cys Glu Val
3057 1605 1610 1615
3059 Thr Met Gly Ser Gln Cys His Ile Thr Lys Thr Ile Gln Asp Thr Leu
3060 1620 1625 1630
3062 Asn Pro Lys Trp Asn Ser Asn Cys Gln Phe Phe Ile Arg Asp Leu Glu
3063 1635 1640 1645
3065 Gln Glu Val Leu Cys Ile Thr Val Phe Glu Arg Asp Gln Phe Ser Pro

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

Input Set : A:\Eganl.app
Output Set: N:\CRF3\01112001\I674237.raw

```
                                    1655                    1660
3066    1650
3068 Asp Asp Phe Leu Gly Arg Thr Glu Ile Arg Val Ala Asp Ile Lys Lys
                                1670                1675                1680
E--> 3069 665
3071 Asp Gln Gly Ser Lys Gly Pro Val Thr Lys Cys Leu Leu Leu His Glu
3072                1685                1690                1695
3074 Val Pro Thr Gly Glu Ile Val Val Arg Leu Asp Leu Gln Leu Phe Asp
3075            1700                1705                1710
3077 Glu Pro
3717 <210> SEQ ID NO: 27
3718 <211> LENGTH: 1658
3719 <212> TYPE: PRT
3720 <213> ORGANISM: Mus musculus
3722 <400> SEQUENCE: 27
3723 Met Ala Gln Phe Pro Thr Ala Met Asn Gly Gly Pro Asn Met Trp Ala
3724   1               5                  10                  15
3726 Ile Thr Ser Glu Glu Arg Thr Lys His Asp Lys Gln Phe Asp Asn Leu
3727               20                  25                  30
3729 Lys Pro Ser Gly Gly Tyr Ile Thr Gly Asp Gln Ala Arg Thr Phe Phe
3730           35                  40                  45
3732 Leu Gln Ser Gly Leu Pro Ala Pro Val Leu Ala Glu Ile Trp Ala Leu
3733       50                  55                  60
3735 Ser Asp Leu Asn Lys Asp Gly Lys Met Asp Gln Gln Glu Phe Ser Ile
3736   65                  70                  75                  80
3738 Ala Met Lys Leu Ile Lys Leu Lys Leu Gln Gly Gln Gln Leu Pro Val
3739                   85                  90                  95
3741 Val Leu Pro Pro Ile Met Lys Gln Pro Pro Met Phe Ser Pro Leu Ile
3742               100                 105                 110
3744 Ser Ala Arg Phe Gly Met Gly Ser Met Pro Asn Leu Ser Ile His Gln
3745           115                 120                 125
3747 Pro Leu Pro Pro Val Ala Pro Ile Ala Thr Pro Leu Ser Ser Ala Thr
3748       130                 135                 140
3750 Ser Gly Thr Ser Ile Pro Pro Leu Met Met Pro Ala Pro Leu Val Pro
3751 145                 150                 155                 160
3753 Ser Val Ser Thr Ser Ser Leu Pro Asn Gly Thr Ala Ser Leu Ile Gln
3754                   165                 170                 175
3756 Pro Leu Ser Ile Pro Tyr Ser Ser Ser Thr Leu Pro His Ala Ser Ser
3757               180                 185                 190
3759 Tyr Ser Leu Met Met Gly Gly Phe Gly Gly Ala Ser Ile Gln Lys Ala
3760           195                 200                 205
3762 Gln Ser Leu Ile Asp Leu Gly Ser Ser Ser Ser Thr Ser Ser Thr Ala
3763       210                 215                 220
3765 Ser Leu Ser Gly Asn Ser Pro Lys Thr Gly Thr Ser Glu Trp Ala Val
3766 225                 230                 235                 240
3768 Pro Gln Pro Ser Arg Leu Lys Tyr Arg Gln Lys Phe Asn Ser Leu Asp
3769                   245                 250                 255
3771 Lys Gly Met Ser Gly Tyr Leu Ser Gly Phe Gln Ala Arg Asn Ala Leu
3772               260                 265                 270
3774 Leu Gln Ser Asn Leu Ser Gln Thr Gln Leu Ala Thr Ile Trp Thr Leu
3775           275                 280                 285
```

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:19

Input Set : A:\Eganl.app
Output Set: N:\CRF3\01112001\I674237.raw

```
3777 Ala Asp Ile Asp Gly Asp Gly Gln Leu Lys Ala Glu Glu Phe Ile Leu
3778     290                 295                 300
3780 Ala Met His Leu Thr Asp Met Ala Lys Ala Gly Gln Pro Leu Pro Leu
3781 305                 310                 315                 320
3783 Thr Leu Pro Pro Glu Leu Val Pro Pro Ser Phe Arg Gly Gly Lys Gln
3784                 325                 330                 335
3786 Val Asp Ser Val Asn Gly Thr Leu Pro Ser Tyr Gln Lys Thr Gln Glu
3787             340                 345                 350
3789 Glu Glu Pro Gln Lys Lys Leu Pro Val Thr Phe Glu Asp Lys Arg Lys
3790         355                 360                 365
3792 Ala Asn Tyr Glu Arg Gly Asn Met Glu Leu Glu Lys Arg Arg Gln Val
3793     370                 375                 380
3795 Leu Met Glu Gln Gln Gln Arg Glu Ala Glu Arg Lys Ala Gln Lys Glu
3796 385                 390                 395                 400
3798 Lys Glu Glu Trp Glu Arg Lys Gln Arg Glu Leu Gln Glu Gln Glu Trp
3799                 405                 410                 415
3801 Lys Lys Gln Leu Glu Leu Glu Lys Arg Leu Glu Lys Gln Arg Glu Leu
3802             420                 425                 430
3804 Glu Arg Gln Arg Glu Glu Glu Arg Arg Lys Glu Ile Glu Arg Arg Glu
3805         435                 440                 445
3807 Ala Ala Lys Glu Glu Leu Glu Arg Gln Arg Arg Leu Glu Trp Glu Arg
3808     450                 455                 460
3810 Leu Arg Arg Gln Glu Leu Leu Ser Gln Lys Thr Arg Glu Gln Glu Asp
3811 465                 470                 475                 480
3813 Ile Val Arg Leu Ser Ser Arg Lys Lys Ser Leu His Leu Glu Leu Glu
3814                 485                 490                 495
3816 Ala Val Asn Gly Lys His Gln Gln Ile Ser Gly Arg Leu Gln Asp Val
3817             500                 505                 510
3819 Gln Ile Arg Lys Gln Thr Gln Lys Thr Glu Leu Glu Val Leu Asp Lys
3820         515                 520                 525
3822 Gln Cys Asp Leu Glu Ile Met Glu Ile Lys Gln Leu Gln Gln Glu Leu
3823     530                 535                 540
3825 Lys Glu Tyr Gln Asn Lys Leu Ile Tyr Leu Val Pro Glu Lys Gln Leu
3826 545                 550                 555                 560
3828 Leu Asn Glu Arg Ile Lys Asn Met Gln Leu Ser Asn Thr Pro Asp Ser
3829                 565                 570                 575
3831 Gly Ile Ser Leu Leu His Lys Lys Ser Ser Glu Lys Glu Glu Leu Cys
3832             580                 585                 590
3834 Gln Arg Leu Lys Glu Gln Leu Asp Ala Leu Glu Lys Glu Thr Ala Ser
3835         595                 600                 605
3837 Lys Leu Ser Glu Met Asp Ser Phe Asn Asn Gln Leu Lys Glu Leu Arg
3838     610                 615                 620
3840 Glu Ser Tyr Asn Thr Gln Gln Leu Ala Leu Glu Gln Leu His Lys Ile
3841 625                 630                 635                 640
3843 Lys Arg Asp Lys Leu Lys Glu Ile Glu Arg Lys Arg Leu Glu Gln Ile
3844                 645                 650                 655
3846 Gln Lys Lys Lys Leu Glu Asp Glu Ala Ala Arg Lys Ala Lys Gln Gly
3847             660                 665                 670
3849 Lys Glu Asn Leu Trp Arg Glu Ser Ile Arg Lys Glu Glu Glu Glu Lys
```

RAW SEQUENCE LISTING DATE: 01/11/2001
PATENT APPLICATION: US/09/674,237 TIME: 17:14:20

Input Set : A:\Eganl.app
Output Set: N:\CRF3\01112001\I674237.raw

```
3850          675                 680                 685
3852 Gln Lys Arg Leu Gln Glu Glu Lys Ser Gln Asp Lys Thr Gln Glu Glu
3853      690                 695                 700
3855 Glu Arg Lys Ala Glu Ala Lys Gln Ser Glu Thr Ala Ser Ala Leu Val
3856 705                 710                 715                 720
3858 Asn Tyr Arg Ala Leu Tyr Pro Phe Glu Ala Arg Asn His Asp Glu Met
3859                 725                 730                 735
3861 Ser Phe Ser Ser Gly Asp Ile Ile Gln Val Asp Glu Lys Thr Val Gly
3862             740                 745                 750
3864 Glu Pro Gly Trp Leu Tyr Gly Ser Phe Gln Gly Lys Phe Gly Trp Phe
3865          755                 760                 765
3867 Pro Cys Asn Tyr Val Glu Lys Val Leu Ser Ser Glu Lys Ala Leu Ser
3868      770                 775                 780
3870 Pro Lys Lys Ala Leu Leu Pro Pro Thr Val Ser Leu Ser Ala Thr Ser
3871 785                 790                 795                 800
3873 Thr Ser Ser Gln Pro Pro Ala Ser Val Thr Asp Tyr His Asn Val Ser
3874                 805                 810                 815
3876 Phe Ser Asn Leu Thr Val Asn Thr Thr Trp Gln Gln Lys Ser Ala Phe
3877             820                 825                 830
3879 Thr Arg Thr Val Ser Pro Gly Ser Val Ser Pro Ile His Gly Gln Glv
3880          835                 840                 845
3882 Gln Ala Val Glu Asn Leu Lys Ala Gln Ala Leu Cys Ser Trp Thr Ala
3883      850                 855                 860
3885 Lys Lys Glu Asn His Leu Asn Phe Ser Lys His Asp Val Ile Thr Val
3886 865                 870                 875                 880
3888 Leu Glu Gln Gln Gln Glu Asn Trp Trp Phe Gly Glu Val His Gly Gly Arg
3889                 885                 890                 895
3891 Gly Trp Phe Pro Lys Ser Tyr Val Lys Leu Ile Pro Gly Asn Glu Val
3892             900                 905                 910
3894 Gln Arg Gly Glu Pro Glu Ala Leu Tyr Ala Ala Val Thr Lys Lys Pro
3895          915                 920                 925
3897 Thr Ser Thr Ala Tyr Pro Val Thr Ser Thr Ala Tyr Pro Val Gly Glu
3898      930                 935                 940
3900 Asp Tyr Ile Ala Leu Tyr Ser Tyr Ser Ser Val Glu Pro Gly Asp Leu
3901 945                 950                 955                 960
3903 Thr Phe Thr Glu Gly Glu Glu Ile Leu Val Thr Gln Lys Asp Gly Glu
3904                 965                 970                 975
3906 Trp Trp Thr Gly Ser Ile Gly Glu Arg Thr Gly Ile Phe Pro Ser Asn
3907             980                 985                 990
3909 Tyr Val Arg Pro Lys Asp Gln Glu Asn Phe Gly Asn Ala Ser Lys Ser
3910          995                1000                1005
3912 Gly Ala Ser Asn Lys Lys Pro Glu Ile Ala Gln Val Thr Ser Ala Tyr
3913     1010                1015                1020
3915 Ala Ala Ser Gly Thr Glu Gln Leu Ser Leu Ala Pro Gly Gln Leu Ile
E--> 3916 025                1030                1035                1040
3918 Leu Ile Leu Lys Lys Asn Thr Ser Gly Trp Trp Gln Gly Glu Leu Gln
3919                1045                1050                1055
3921 Ala Arg Gly Lys Lys Arg Gln Lys Gly Trp Phe Pro Ala Ser His Val
3922            1060                1065                1070
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:20

Input Set : A:\Egan1.app
Output Set: N:\CRF3\01112001\I674237.raw

3924 Lys Leu Leu Gly Pro Ser Ser Glu Arg Thr Met Pro Thr Phe His Ala
3925 1075 1080 1085
3927 Val Cys Gln Val Ile Ala Met Tyr Asp Tyr Met Ala Asn Asn Glu Asp
3928 1090 1095 1100
3930 Glu Leu Asn Phe Ser Lys Gly Gln Leu Ile Asn Val Met Asn Lys Asp
E--> 3931 105 1110 1115 1120
3933 Asp Pro Asp Trp Trp Gln Gly Glu Thr Asn Gly Leu Thr Gly Leu Phe
3934 1125 1130 1135
3936 Pro Ser Asn Tyr Val Lys Met Thr Thr Asp Ser Asp Pro Ser Gln Gln
3937 1140 1145 1150
3939 Trp Cys Ala Asp Leu Gln Ala Leu Asp Thr Met Gln Pro Thr Glu Arg
3940 1155 1160 1165
3942 Lys Arg Gln Gly Tyr Ile His Glu Leu Ile Gln Thr Glu Glu Arg Tyr
3943 1170 1175 1180
3945 Met Asp Asp Asp Leu Gln Leu Val Ile Glu Val Phe Gln Lys Arg Met
E--> 3946 185 1190 1195 1200
3948 Ala Glu Glu Gly Phe Leu Thr Glu Ala Asp Met Ala Leu Ile Phe Val
3949 1205 1210 1215
3951 Asn Trp Lys Glu Leu Ile Met Ser Asn Thr Lys Leu Leu Arg Ala Leu
3952 1220 1225 1230
3954 Arg Val Arg Lys Lys Thr Gly Gly Glu Lys Met Pro Val Gln Met Ile
3955 1235 1240 1245
3957 Gly Asp Ile Leu Ala Ala Glu Leu Ser His Met Gln Ala Tyr Ile Arg
3958 1250 1255 1260
3960 Phe Cys Ser Cys Gln Leu Asn Gly Ala Thr Leu Leu Gln Gln Lys Thr
E--> 3961 265 1270 1275 1280
3963 Asp Glu Asp Thr Asp Phe Lys Glu Phe Leu Lys Lys Leu Ala Ser Asp
3964 1285 1290 1295
3966 Pro Arg Cys Lys Gly Met Pro Leu Ser Ser Phe Leu Leu Lys Pro Met
3967 1300 1305 1310
3969 Gln Arg Ile Thr Arg Tyr Pro Leu Leu Ile Arg Ser Ile Leu Glu Asn
3970 1315 1320 1325
3972 Thr Pro Gln Ser His Val Asp His Ser Ser Leu Lys Leu Ala Leu Glu
3973 1330 1335 1340
3975 Arg Ala Glu Glu Leu Cys Ser Gln Val Asn Glu Gly Val Arg Glu Lys
E--> 3976 345 1350 1355 1360
3978 Glu Asn Ser Asp Arg Leu Glu Trp Ile Gln Ala His Val Gln Cys Glu
3979 1365 1370 1375
3981 Gly Leu Ala Glu Gln Leu Ile Phe Asn Ser Leu Thr Asn Cys Leu Gly
3982 1380 1385 1390
3984 Pro Arg Lys Leu Leu His Ser Gly Lys Leu Tyr Lys Thr Lys Ser Asn
3985 1395 1400 1405
3987 Lys Glu Leu His Ala Phe Leu Phe Asn Asp Phe Leu Leu Leu Thr Tyr
3988 1410 1415 1420
3990 Leu Val Arg Gln Phe Ala Ala Ala Ser Gly His Glu Lys Leu Phe Asn
E--> 3991 425 1430 1435 1440
3993 Ser Lys Ser Ser Ala Gln Phe Arg Met Tyr Lys Thr Pro Ile Phe Leu
3994 1445 1450 1455
3996 Asn Glu Val Leu Val Lys Leu Pro Thr Asp Pro Ser Gly Asp Glu Pro

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:20

Input Set : A:\Egan1.app
Output Set: N:\CRF3\01112001\I674237.raw

```
     3997                1460                1465                1470
     3999 Val Phe His Ile Ser His Ile Asp Arg Val Tyr Thr Leu Arg Thr Asp
     4000         1475                1480                1485
     4002 Asn Ile Asn Glu Arg Thr Ala Trp Val Gln Lys Ile Lys Gly Ala Ser
     4003     1490                1495                1500
     4005 Glu Gln Tyr Ile Asp Thr Glu Lys Lys Lys Arg Glu Lys Ala Tyr Gln
E--> 4006 505                 1510                1515                1520
     4008 Ala Arg Ser Gln Lys Thr Ser Gly Ile Gly Arg Leu Met Val His Val
     4009                1525                1530                1535
     4011 Ile Glu Ala Thr Glu Leu Lys Ala Cys Lys Pro Asn Gly Lys Ser Asn
     4012            1540                1545                1550
     4014 Pro Tyr Cys Glu Val Ser Met Gly Ser Gln Ser Tyr Thr Thr Arg Thr
     4015        1555                1560                1565
     4017 Leu Gln Asp Thr Leu Asn Pro Lys Trp Asn Phe Asn Cys Gln Phe Phe
     4018    1570                1575                1580
     4020 Ile Lys Asp Leu Tyr Gln Asp Val Leu Cys Leu Thr Met Phe Asp Arg
E--> 4021 585                 1590                1595                1600
     4023 Asp Gln Phe Ser Pro Asp Asp Phe Leu Gly Arg Thr Glu Val Pro Val
     4024                1605                1610                1615
     4026 Ala Lys Ile Arg Thr Glu Gln Glu Ser Lys Gly Pro Thr Thr Arg Arg
     4027            1620                1625                1630
     4029 Leu Leu Leu His Glu Val Pro Thr Gly Glu Val Trp Val Arg Phe Asp
     4030        1635                1640                1645
     4032 Leu Gln Leu Phe Glu Gln Lys Thr Leu Leu
     4033    1650                1655
```

see following page for more errors

<210> 18

<211> 1521

<212> DNA

<213> Mus musculus

<400> 18

gagaaggcgg cctgccgcag cgggacaacc tagagcgcga cgtggaggcg cgtagcggag 60

ctggagcaac tgcgcaccga ggtggatgtg cgcattagcg cnntggacac ctgcgtcaag 120

gccaagtcgc tgccagccgt cccgccgaga gtctcaggcc cacccccgaa ccctccaccc 180

attgatccag ctagcctgga ggaattcaag aaaaggatcc tggagtctca gcggctccct 240

gtagtcaacc ctgcwgccca acccagcggt tgagraccca gctgccgcag gacgctgggt 300

gccagaatcg cccacctgtg gatgggggca gccaggtgcc cacagtgctg gacacccgcc 360

gtgcctgccg gcagcctcca cccccagcgc cttctctggc acccccttcac tgtcccstgc 420

atccccrcca ttcsscasws askggattta aggcacacac agctgtgaga tgacttcaca 480

tcgacccctt gtgcagtgac ccggatggtg ccccacccac acatgaagca cccacagctc 540

agctgccacc ctaggcaact cctccggttt cctatcactc tgctcctgac ccgggaggtg 600

agaacaggaa gcccagcctt cagctcccct gggagtttcc agcctccctc ttaaaggcca 660

see Item 10 on Error Summary Sheet

Only errored portion of Sequence 18 shown

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/674,237

DATE: 01/11/2001
TIME: 17:14:21

Input Set : A:\Egan1.app
Output Set: N:\CRF3\01112001\I674237.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:711 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3
M:332 Repeated in SeqNo=3
L:1421 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
M:332 Repeated in SeqNo=6
L:1979 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:18
L:1979 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:18
L:1979 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:18
L:1979 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:18
L:1979 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:18
L:2747 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:23
L:2949 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:24
M:332 Repeated in SeqNo=24
L:3916 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:27
M:332 Repeated in SeqNo=27